

RAW SEQUENCE LISTING

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Application Serial Number: 10/538,434
Source: JFL00
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RAW SEQUENCE LISTING DATE: 08/25/2006
PATENT APPLICATION: US/10/538,434 **TIME:** 11:52:27

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3 <110> APPLICANT: Jahn, Margaret M.
4 Kang, Byoung-Cheol
6 <120> TITLE OF INVENTION: RECESSIVE PLANT VIRAL RESISTANCE RESULTS FROM MUTATIONS
7 IN TRANSLATION INITIATION FACTOR eIF4E
9 <130> FILE REFERENCE: 19603/4252
11 <140> CURRENT APPLICATION NUMBER: 10/538,434
C--> 12 <141> CURRENT FILING DATE: 2005-06-10
14 <150> PRIOR APPLICATION NUMBER: 60/434,220
15 <151> PRIOR FILING DATE: 2002-12-17
17 <150> PRIOR APPLICATION NUMBER: PCT/US03/40184
18 <151> PRIOR FILING DATE: 2003-12-17
20 <160> NUMBER OF SEQ ID NOS: 39
22 <170> SOFTWARE: PatentIn Ver. 2.1
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 875
26 <212> TYPE: DNA
27 <213> ORGANISM: Capsicum annuum
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32 aggtgaaatt gttgaagaaa ctgatgatac gacgtcgat ttgagcaaag aaatagcaac 180
33 aaagcatcca ttagagcatt catggacttt ctgggttgc aatccagtgg cgaaatcgaa 240
34 acaagctgct tggggtagct cgcttcgcaa cgtctacact ttctccactg ttgaagattt 300
35 ttggggtagct tacaataata tccaccaccc aagcaagttt gttgtggag cagacttaca 360
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37 atggaaaatg agttttcaaa agggtaaatc tgataccagc tggctatata cgctgctgc 480
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40 tagcatttgtt aagcaatggg agcagtttctt ggattacagc gacagtgtt gcttcatatt 660
41 tcacgacgat gcaaaagaggc tcgacagaaaa tggcaaaaat cgttacacag tataattttt 720
42 gatgcaatgtt cggaaatataa gaaacacaat tctgtactgaa aagttgttagg cactagttt 780
43 gtttctcata cgataaaagct tctgggttgc gtacttgtt tattgggtt tgcactttct 840
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56 20 25 30
59 Glu Ile Val Glu Glu Thr Asp Asp Thr Ser Tyr Leu Ser Lys Glu

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65	Asn Pro Val Ala Lys Ser Lys Gln Ala Ala Trp Gly Ser Ser Leu Arg			
66	65	70	75	80
68	Asn Val Tyr Thr Phe Ser Thr Val Glu Asp Phe Trp Gly Ala Tyr Asn			
69	85	90	95	
71	Asn Ile His His Pro Ser Lys Leu Val Val Gly Ala Asp Leu His Cys			
72	100	105	110	
74	Phe Lys His Lys Ile Glu Pro Lys Trp Glu Asp Pro Val Cys Ala Asn			
75	115	120	125	
77	Gly Gly Thr Trp Lys Met Ser Phe Ser Lys Gly Lys Ser Asp Thr Ser			
78	130	135	140	
80	Trp Leu Tyr Thr Leu Leu Ala Met Ile Gly His Gln Phe Asp His Glu			
81	145	150	155	160
83	Asp Glu Ile Cys Gly Ala Val Val Ser Val Arg Gly Lys Gly Glu Lys			
84	165	170	175	
86	Ile Ser Leu Trp Thr Lys Asn Ala Ala Asn Glu Thr Ala Gln Val Ser			
87	180	185	190	
89	Ile Gly Lys Gln Trp Lys Gln Phe Leu Asp Tyr Ser Asp Ser Val Gly			
90	195	200	205	
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112	tctgatacca gctggctata tacgctgctt gcaatgattt gacatcaatt cgatcatgaa 480			
113	gatgaaattt gtggagcgtt agtttgttc agaggttgg gggaaaaat atctttgtgg 540			
114	accaagaatg ctgcaaatga aacggcttagt gttacattt gtaagcaatg gaagcagttt 600			
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122	<213> ORGANISM: Capsicum chinense			
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129          20           25           30
131 Glu Ile Val Glu Glu Thr Asp Asp Thr Thr Ser Tyr Leu Ser Lys Glu
132          35           40           45
134 Ile Ala Ala Lys His Pro Leu Glu His Ser Trp Thr Phe Trp Phe Asp
135          50           55           60
137 Asn Thr Val Ala Lys Ser Arg Gln Ala Ala Trp Gly Ser Ser Leu Arg
138          65           70           75           80
140 Asn Val Tyr Thr Phe Ser Thr Val Glu Asp Phe Trp Gly Ala Tyr Asn
141          85           90           95
143 Asn Ile His His Pro Ser Lys Leu Val Val Arg Ala Asp Leu His Cys
144          100          105          110
146 Phe Lys His Lys Ile Glu Pro Lys Trp Glu Asp Pro Val Cys Ala Asn
147          115          120          125
149 Gly Gly Thr Trp Lys Met Ser Phe Ser Lys Gly Lys Ser Asp Thr Ser
150          130          135          140
152 Trp Leu Tyr Thr Leu Leu Ala Met Ile Gly His Gln Phe Asp His Glu
153 145          150          155          160
155 Asp Glu Ile Cys Gly Ala Val Val Ser Val Arg Gly Lys Gly Glu Lys
156          165          170          175
158 Ile Ser Leu Trp Thr Lys Asn Ala Ala Asn Glu Thr Ala Gln Val Ser
159          180          185          190
161 Ile Gly Lys Gln Trp Lys Gln Phe Leu Asp Tyr Ser Asp Ser Val Gly
162          195          200          205
164 Phe Ile Phe His Asp Asp Ala Lys Arg Leu Asp Arg Asn Ala Lys Asn
165          210          215          220
167 Arg Tyr Thr Val
168 225
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172 <211> LENGTH: 687
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174 <213> ORGANISM: Capsicum annuum
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179 acgacgtcgt atttgagcaa agaaaatagca acaaagcatc cattagagca ttcatggact 180
180 ttctggtttataatccaga ggcgaaatcg aaacaagctg cttggggtag ctgcgtcgc 240
181 aacgtctaca ctttctccac ttttgaagat ttttgggtg cttacaataa tatccaccac 300
182 ccaagcaagt tagttgtggg agcagactta cattgtttca agcataaaat tgagccaaag 360
183 tgggaagatc ctgtatgtgc caatggaggg acatggaaaa tgagttttc aaagggtaaa 420
184 tctgatacca gctggctata tacgctgctt gcaatgattt gacatcaatt cgatcatgaa 480
185 gatgaaattt gtggagcagt agtttgttc agaggttaagg gagaaaaaat atctttgtgg 540
186 accaagaatg ctgcaaatga aacggctcag gttacgattt gtaagcaatg gaagcagttt 600
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192 <211> LENGTH: 228
193 <212> TYPE: PRT
194 <213> ORGANISM: Capsicum annuum

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 201 20 25 30
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 204 35 40 45
 206 Ile Ala Thr Lys His Pro Leu Glu His Ser Trp Thr Phe Trp Phe Asp
 207 50 55 60
 209 Asn Pro Glu Ala Lys Ser Lys Gln Ala Ala Trp Gly Ser Ser Arg Arg
 210 65 70 75 80
 212 Asn Val Tyr Thr Phe Ser Thr Val Glu Asp Phe Trp Gly Ala Tyr Asn
 213 85 90 95
 215 Asn Ile His His Pro Ser Lys Leu Val Val Gly Ala Asp Leu His Cys
 216 100 105 110
 218 Phe Lys His Lys Ile Glu Pro Lys Trp Glu Asp Pro Val Cys Ala Asn
 219 115 120 125
 221 Gly Gly Thr Trp Lys Met Ser Phe Ser Lys Gly Lys Ser Asp Thr Ser
 222 130 135 140
 224 Trp Leu Tyr Thr Leu Leu Ala Met Ile Gly His Gln Phe Asp His Glu
 225 145 150 155 160
 227 Asp Glu Ile Cys Gly Ala Val Val Ser Val Arg Gly Lys Gly Glu Lys
 228 165 170 175
 230 Ile Ser Leu Trp Thr Lys Asn Ala Ala Asn Glu Thr Ala Gln Val Ser
 231 180 185 190
 233 Ile Gly Lys Gln Trp Lys Gln Phe Leu Asp Tyr Ser Asp Ser Val Gly
 234 195 200 205
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 237 210 215 220
 239 Arg Tyr Thr Val
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 251 acgacgttgtt atttgagcaa agaaatagca acaaaggcatc cattagagca ttcatggact 180
 252 ttctggttt ataatccaga ggcgaaatcg aaacaagctg cttggggtag ctcgcgtcgc 240
 253 aacgtctaca ctttctccac tggtaagat ttttgggtt cttacaataa tatccaccac 300
 254 ccaagcaagt tagttgtggg agcaaaactta catttttca agcataaaat tgagccaaag 360
 255 tgggaagatc ctgtatgtgc caatggaggg acatggaaaa tgagttttc aaagggtaaa 420
 256 tctgatcca gctggctata tacgctgctt gcaatgattt gacatcaatt cgatcatgaa 480
 257 gatgaaattt gtggagcagt agtttgttc agaggttagg gagaaaaaat attttgtgg 540
 258 accaagaatg ctgcaaattt aacggcttag gttacattt gtaagcaatg gaagcagttt 600
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 260 aatgccaaga atcgatcac cgtatag 687
 263 <210> SEQ ID NO: 8

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264 <211> LENGTH: 228
 265 <212> TYPE: PRT
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 276 35 40 45
 278 Ile Ala Thr Lys His Pro Leu Glu His Ser Trp Thr Phe Trp Phe Asp
 279 50 55 60
 281 Asn Pro Glu Ala Lys Ser Lys Gln Ala Ala Trp Gly Ser Ser Arg Arg
 282 65 70 75 80
 284 Asn Val Tyr Thr Phe Ser Thr Val Glu Asp Phe Trp Gly Ala Tyr Asn
 285 85 90 95
 287 Asn Ile His His Pro Ser Lys Leu Val Val Gly Ala Asn Leu His Cys
 288 100 105 110
 290 Phe Lys His Lys Ile Glu Pro Lys Trp Glu Asp Pro Val Cys Ala Asn
 291 115 120 125
 293 Gly Gly Thr Trp Lys Met Ser Phe Ser Lys Gly Lys Ser Asp Thr Ser
 294 130 135 140
 296 Trp Leu Tyr Thr Leu Leu Ala Met Ile Gly His Gln Phe Asp His Glu
 297 145 150 155 160
 299 Asp Glu Ile Cys Gly Ala Val Val Ser Val Arg Gly Lys Gly Glu Lys
 300 165 170 175
 302 Ile Ser Leu Trp Thr Lys Asn Ala Ala Asn Glu Thr Ala Gln Val Ser
 303 180 185 190
 305 Ile Gly Lys Gln Trp Lys Gln Phe Leu Asp Tyr Ser Asp Ser Val Gly
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 311 Arg Tyr Thr Val
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VERIFICATION SUMMARY

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